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PATENT



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Hateboer et al.

Serial No.: 09/549,463

Filed: April 14, 2000

For: RECOMBINANT PROTEIN
PRODUCTION IN A HUMAN CELL

Confirmation No.: 8657

Examiner: R. Mitra

Group Art Unit: 1653

Attorney Docket No.: 2578-4038.1US

CERTIFICATE OF MAILING

I hereby certify that this correspondence along with any attachments referred to or identified as being attached or enclosed is being deposited with the United States Postal Service as First Class Mail on the date of deposit shown below with sufficient postage and in an envelope addressed to the Commissioner for Patents, Washington, D.C. 20231.

January 30, 2003
Date


Signature

Betty Vowles
Name (Type/Print)

TRANSMITTAL OF FORMAL DRAWINGS

Commissioner for Patents
Washington, D.C. 20231

Sir:

Attached please find the formal drawings for this application.

Respectfully submitted,



Andrew F. Nilles
Registration No. 47,825
Attorney for Applicant(s)
TRASKBRITT, P.C.
P.O. Box 2550
Salt Lake City, Utah 84110-2550
Telephone: 801-532-1922

Date: January 30, 2003
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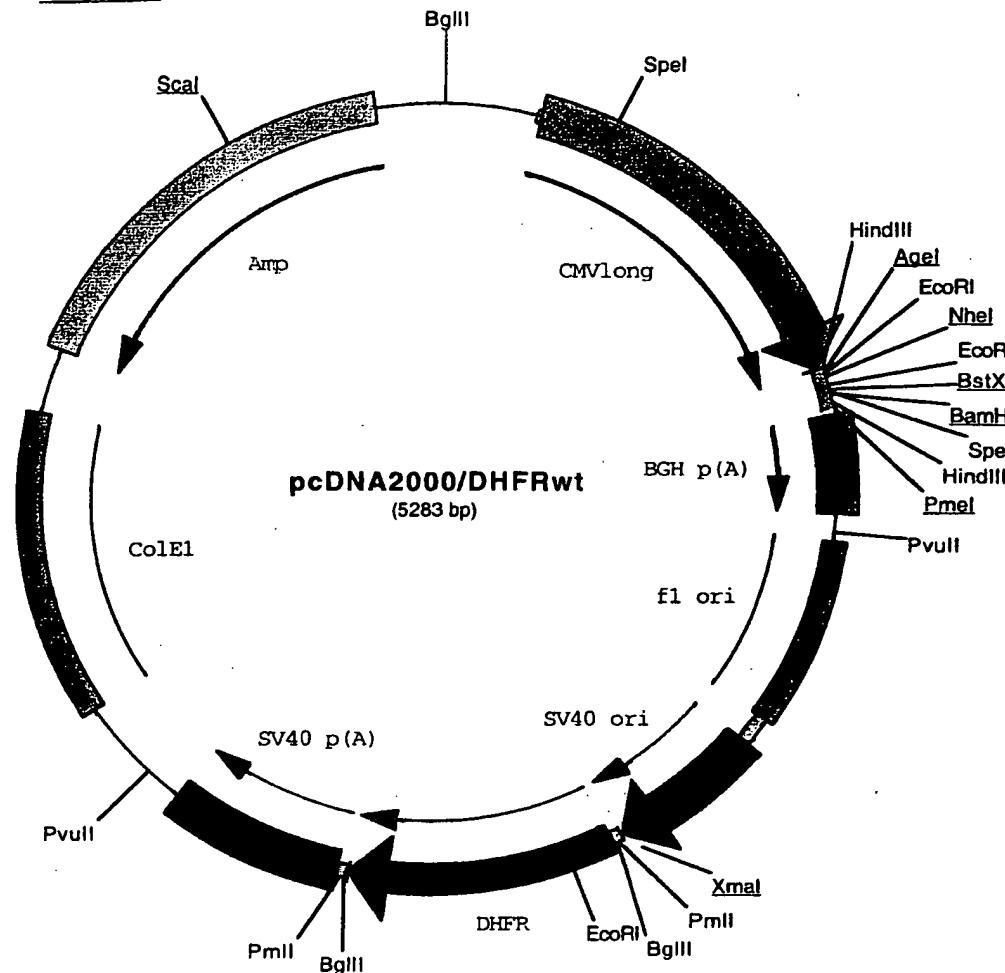


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FIGURE 1



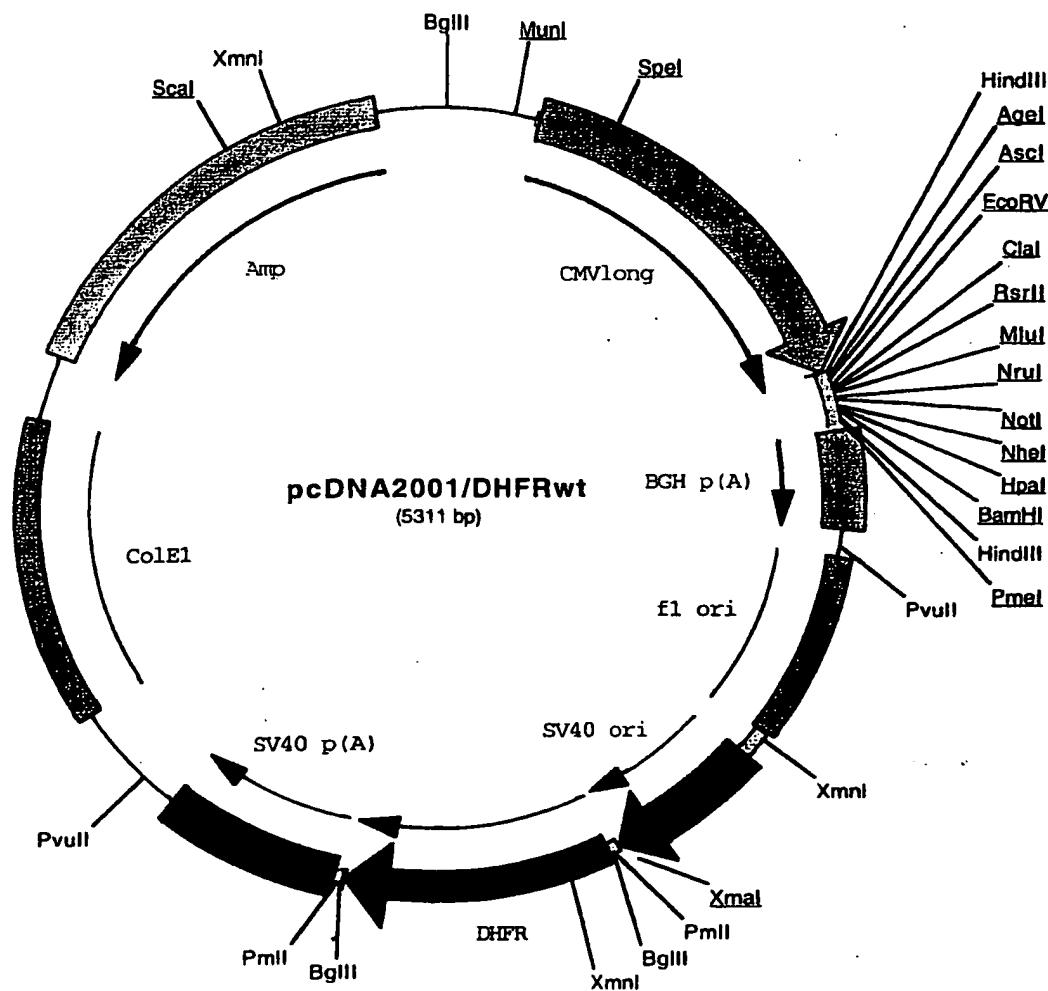
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FIGURE 2



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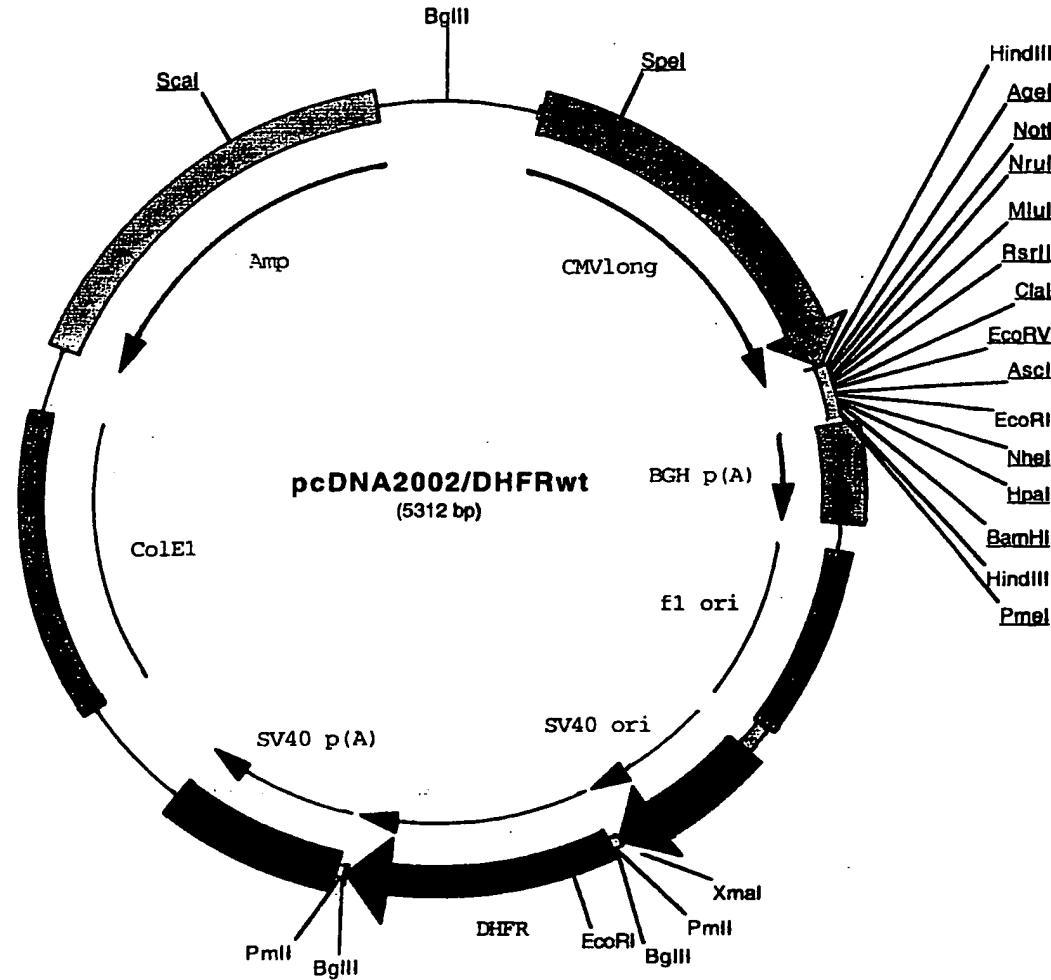
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FIGURE 3



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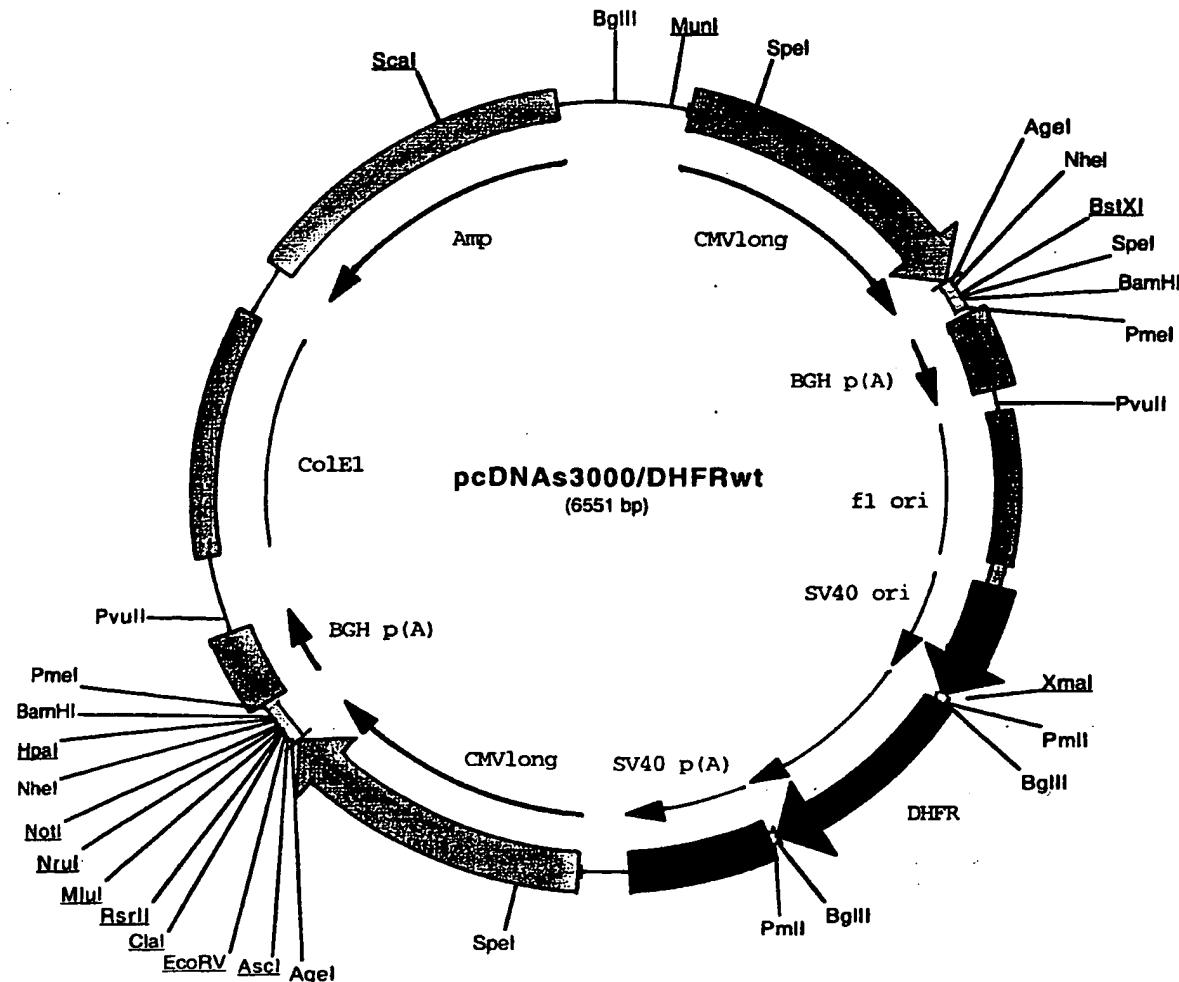
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FIGURE 4



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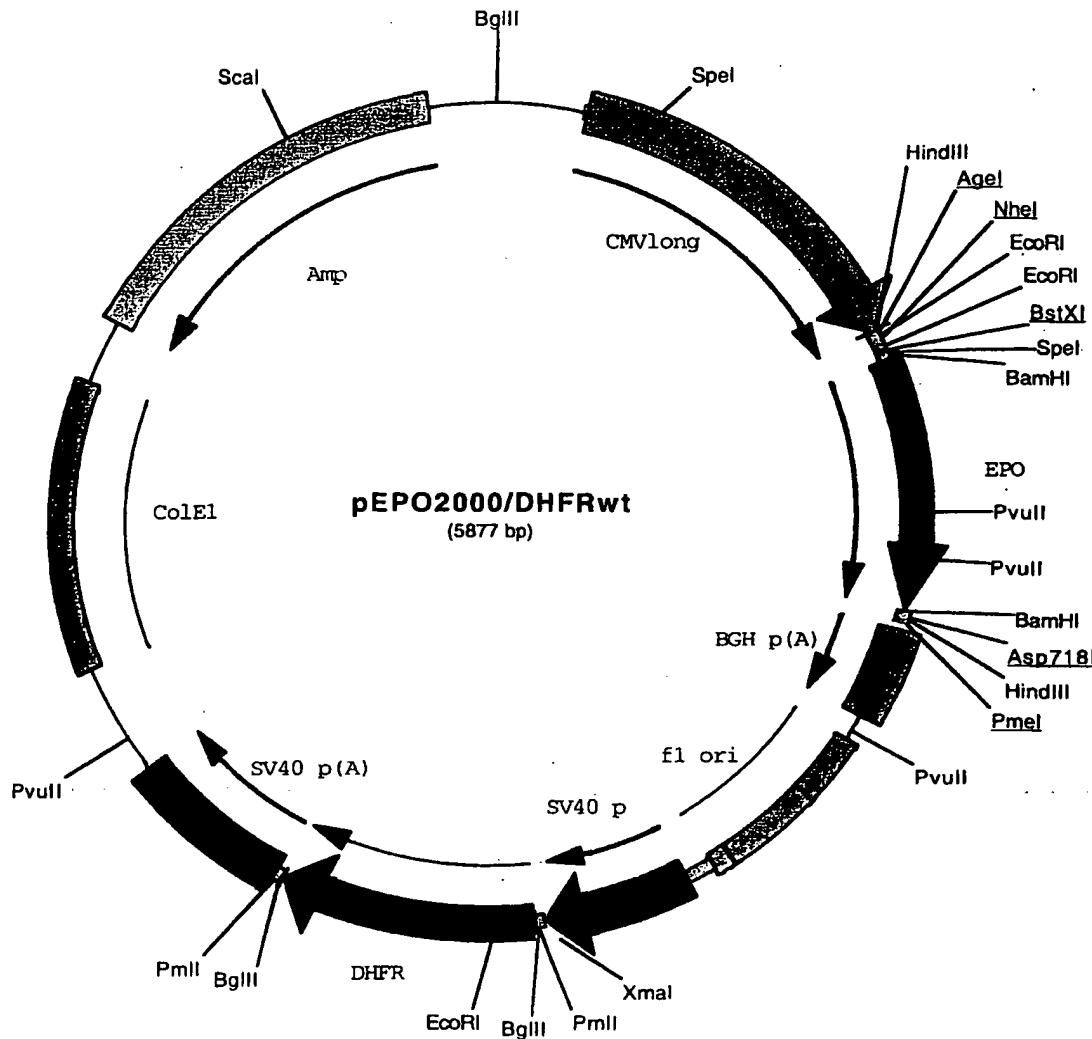
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FIGURE 5



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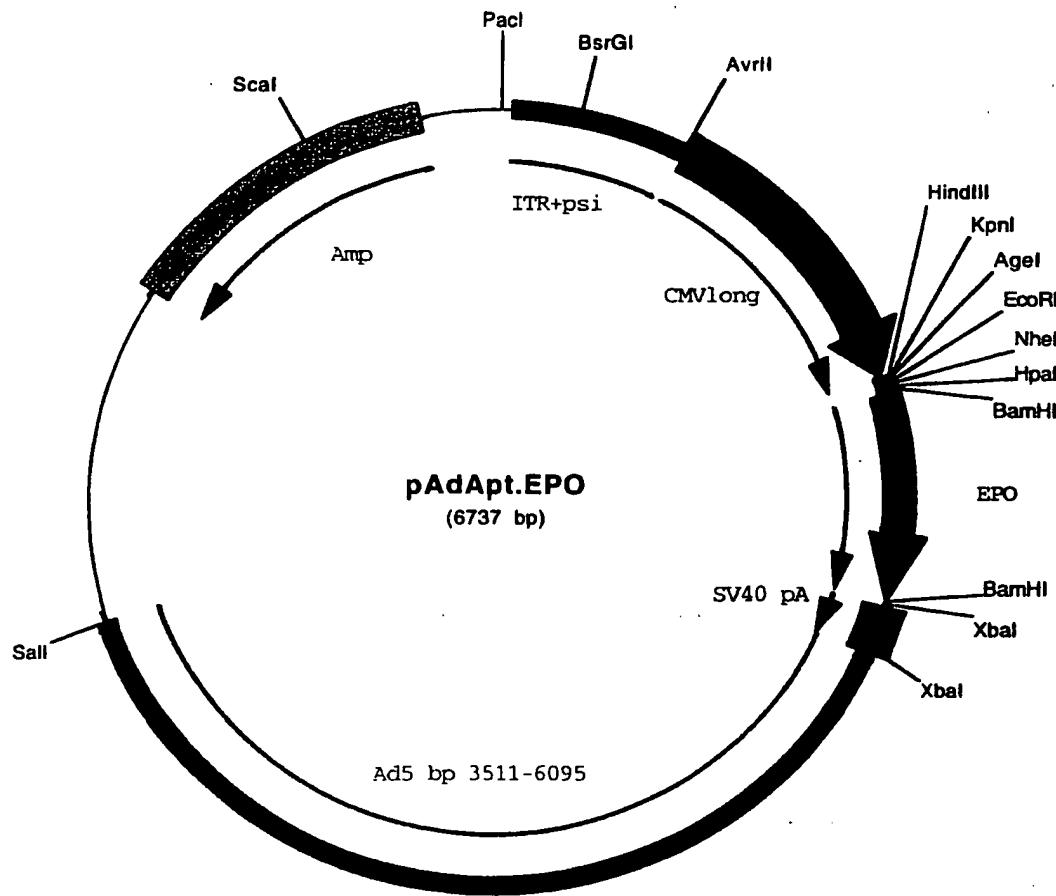
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FIGURE 6



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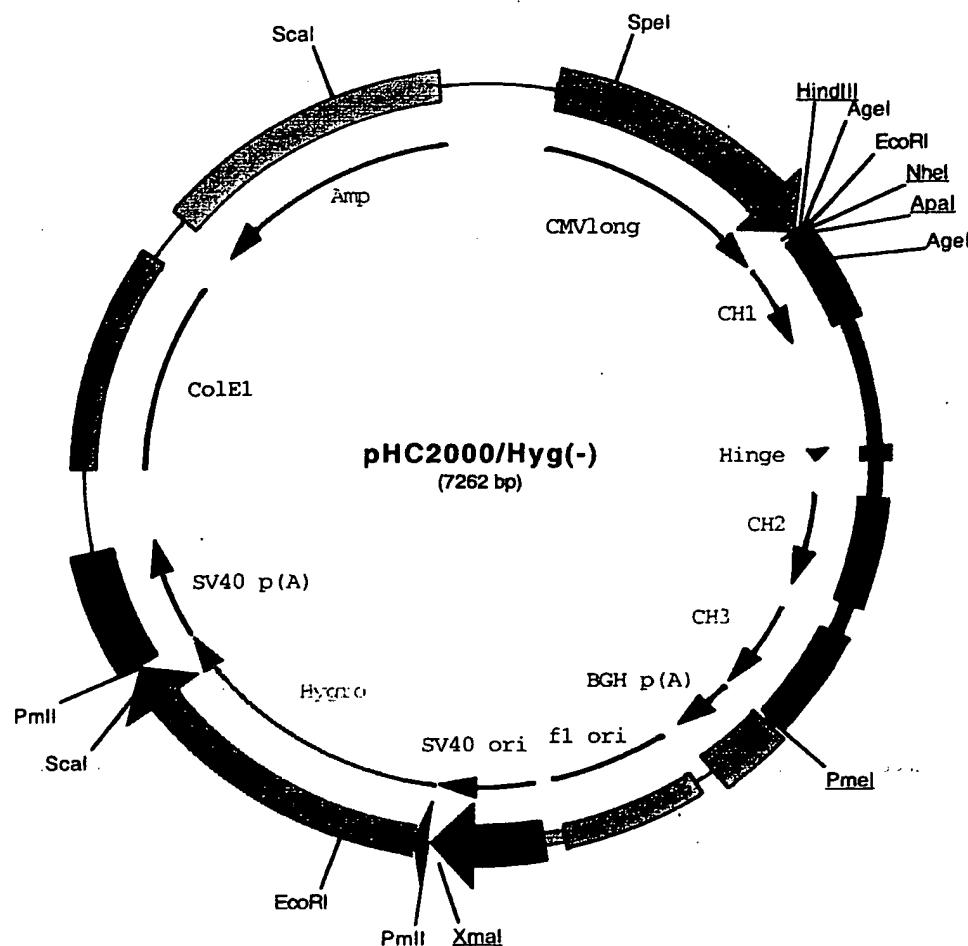
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FIGURE 7





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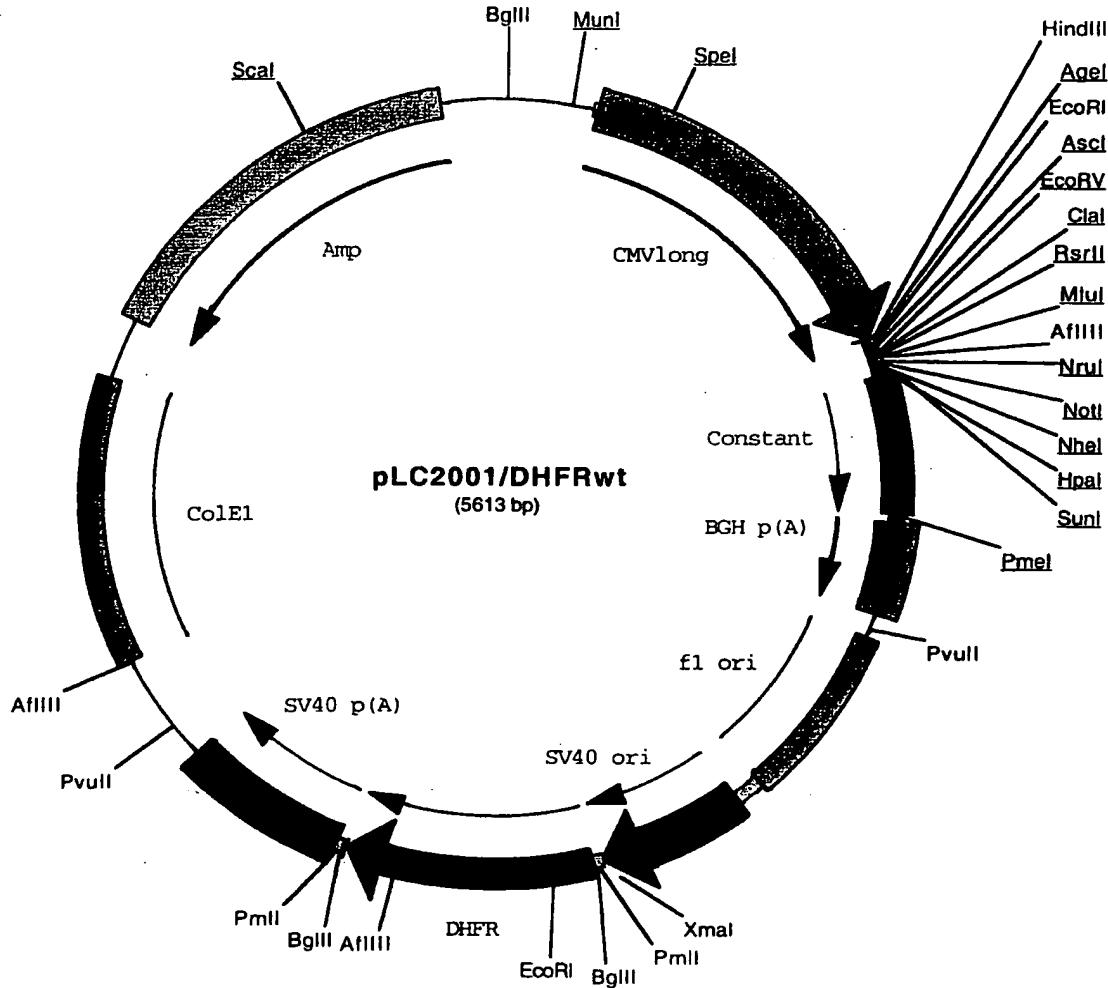
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FIGURE 8

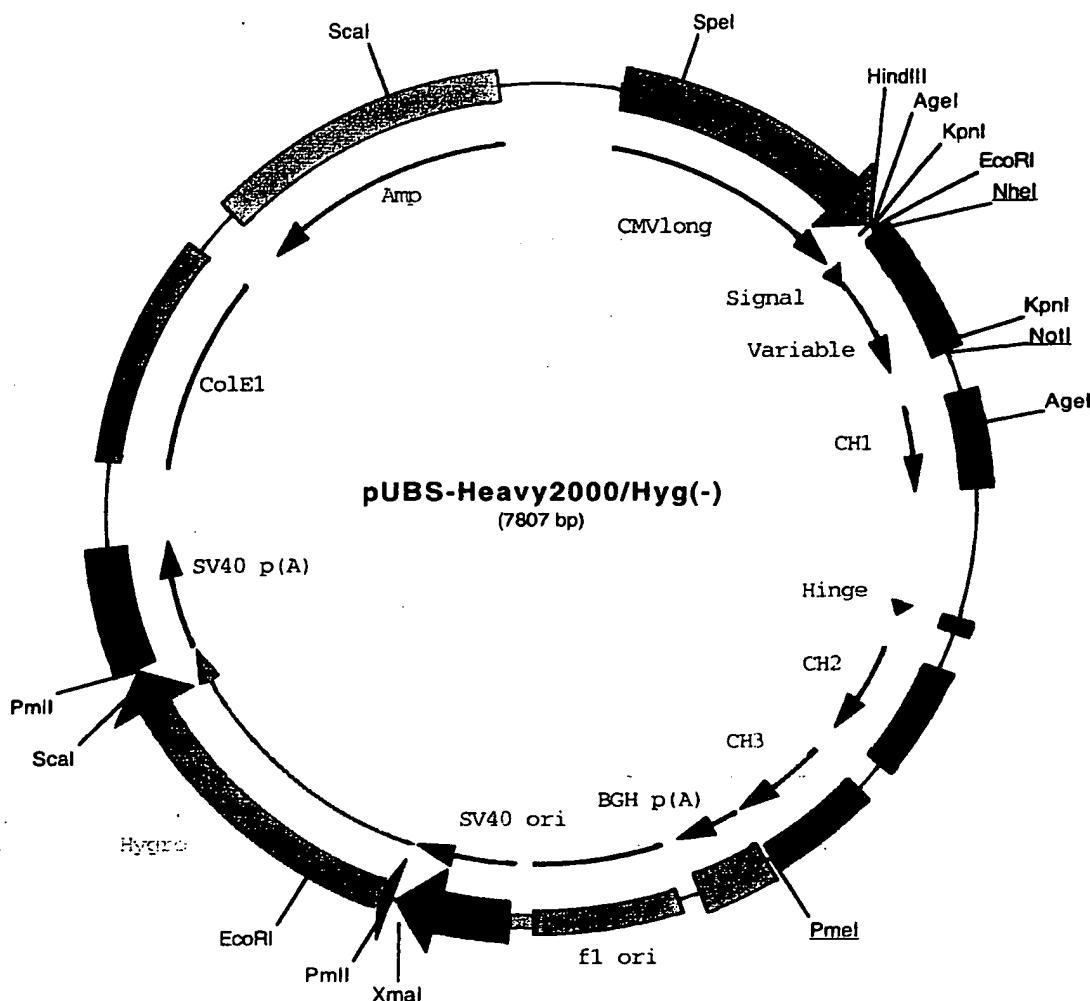




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FIGURE 9



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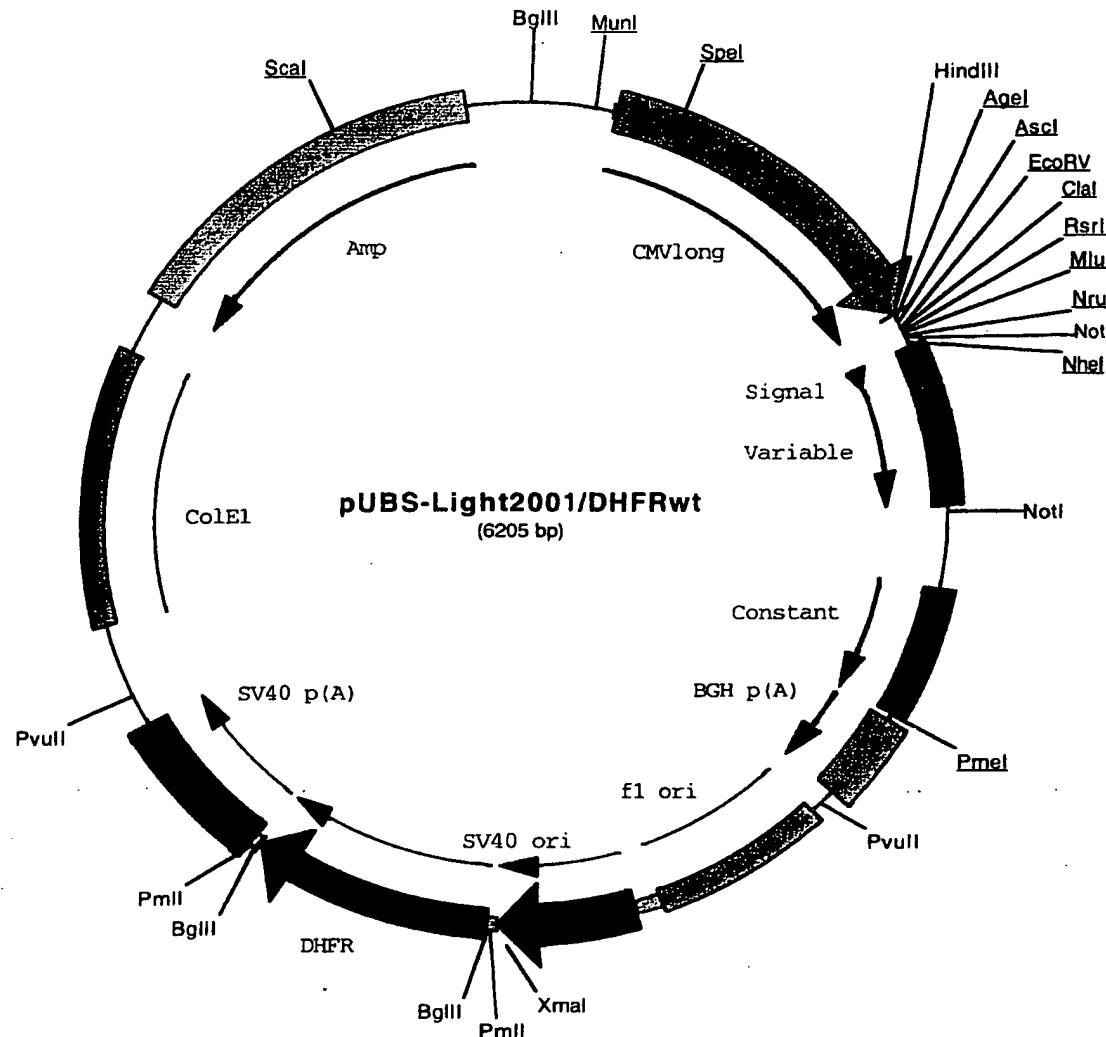
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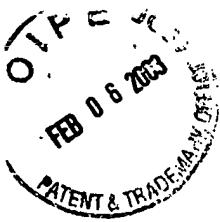
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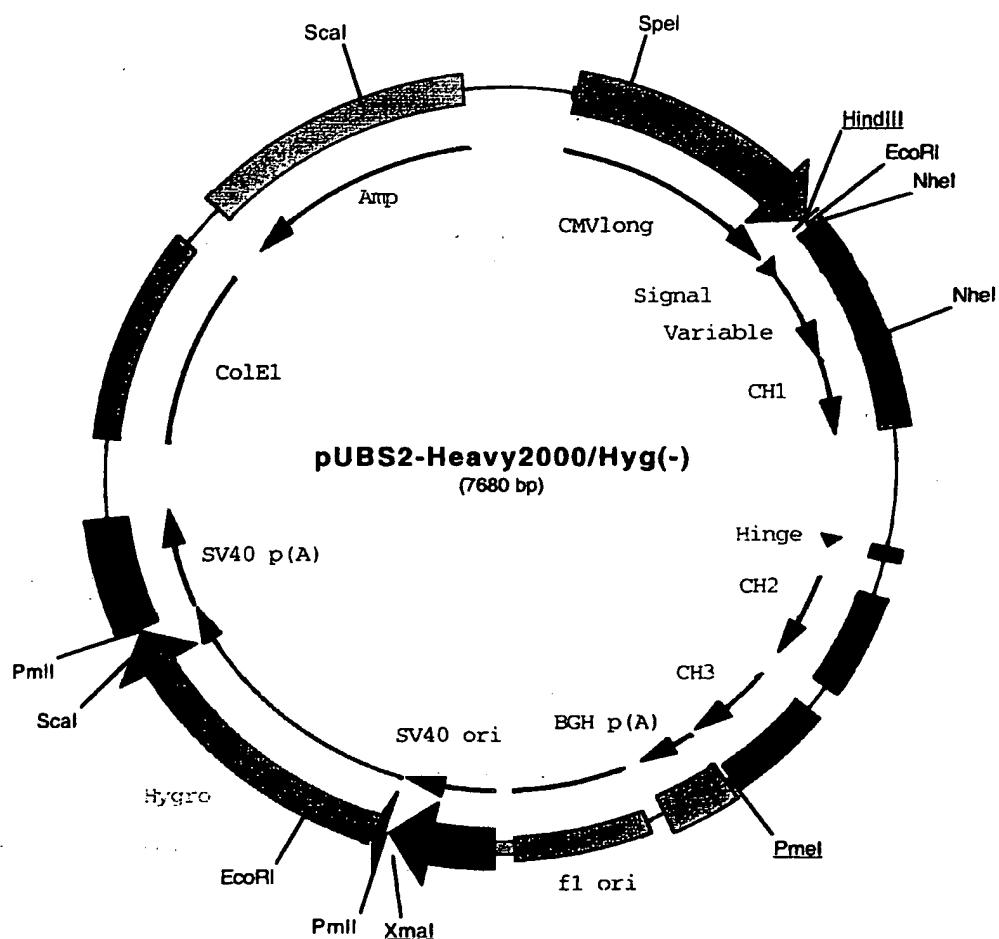
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FIGURE 11



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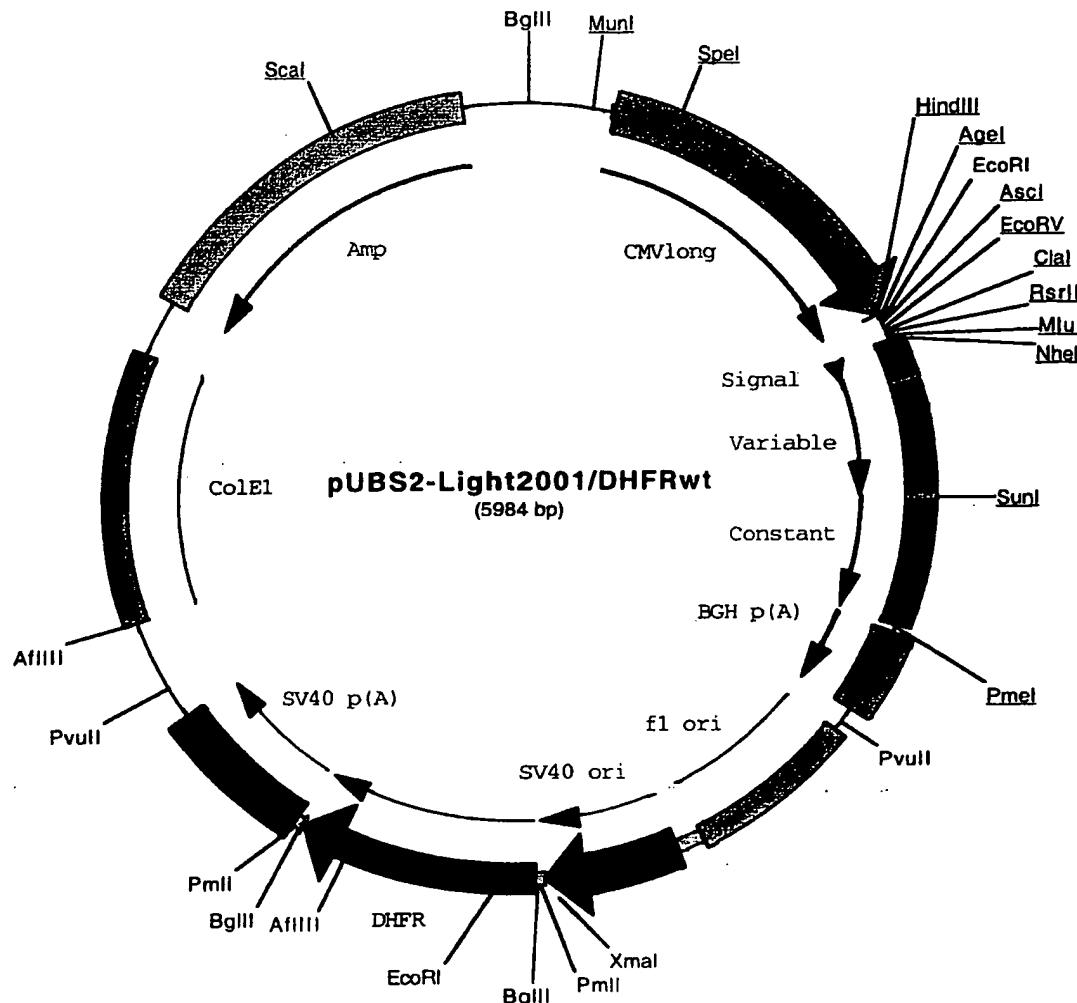
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FIGURE 12



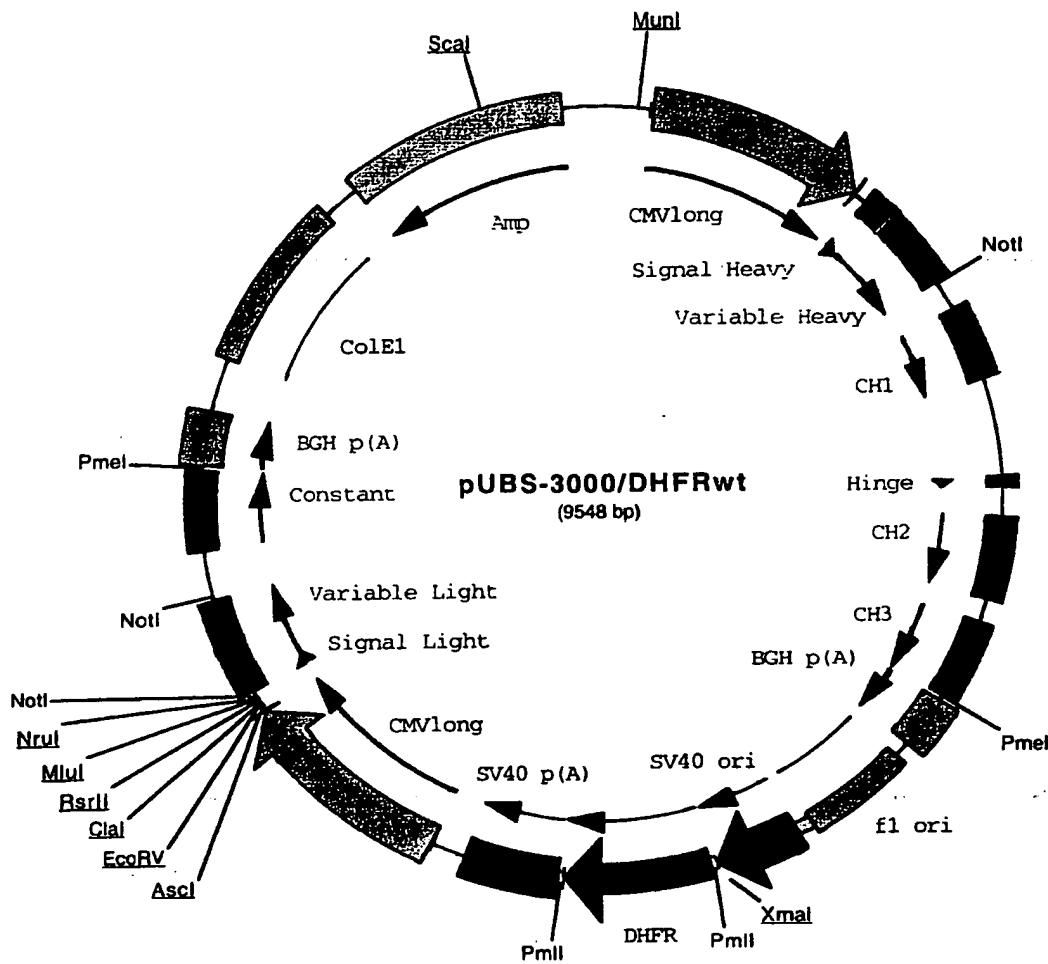
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FIGURE 13



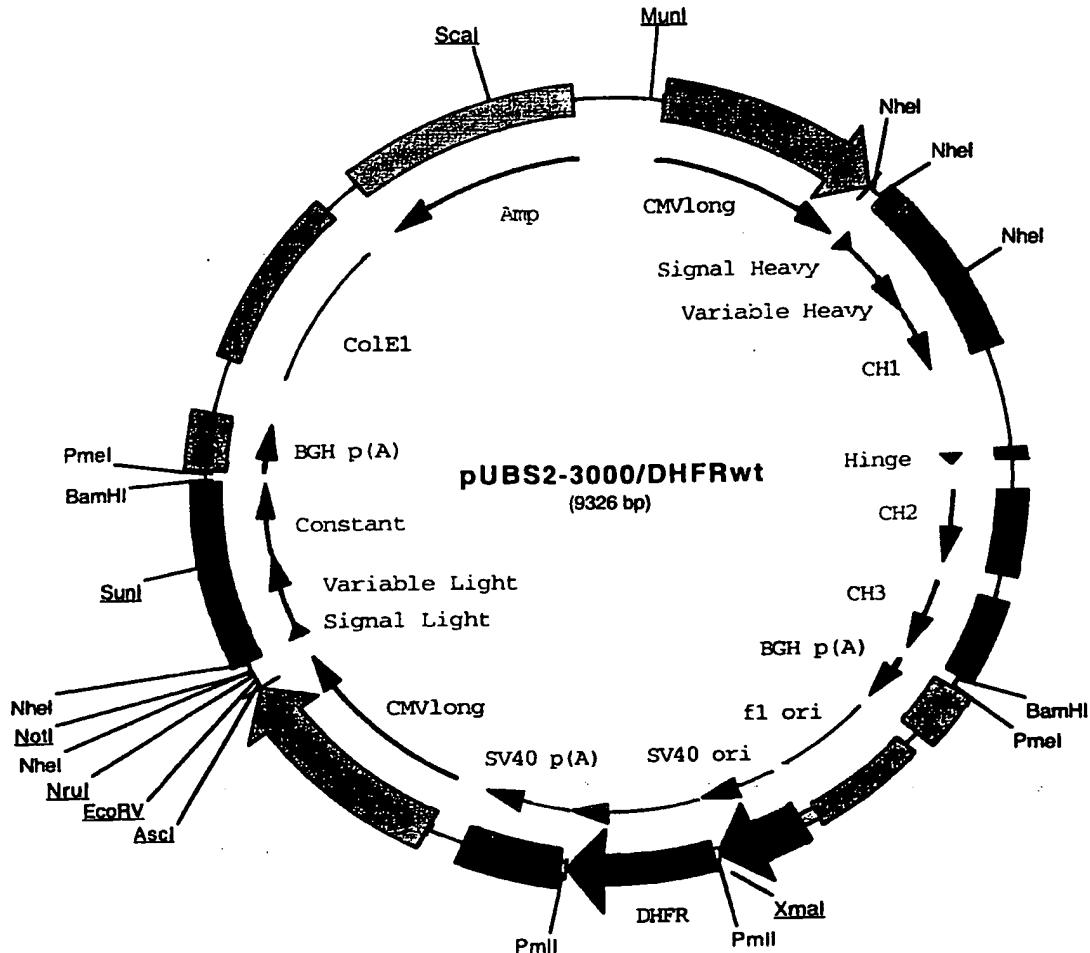


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FIGURE 14



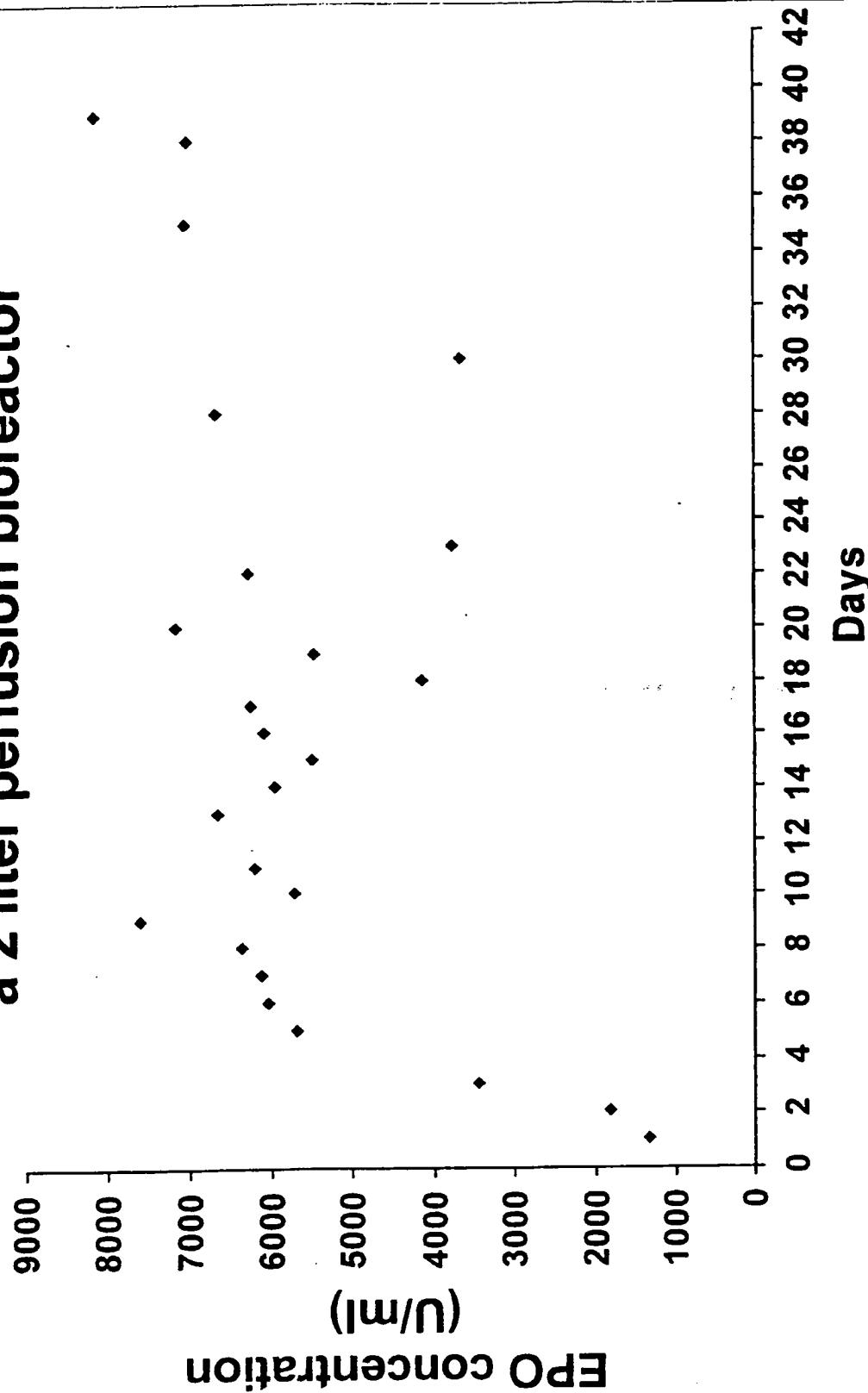
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FIGURE 15

EPO concentration in
a 2 liter perfusion bioreactor





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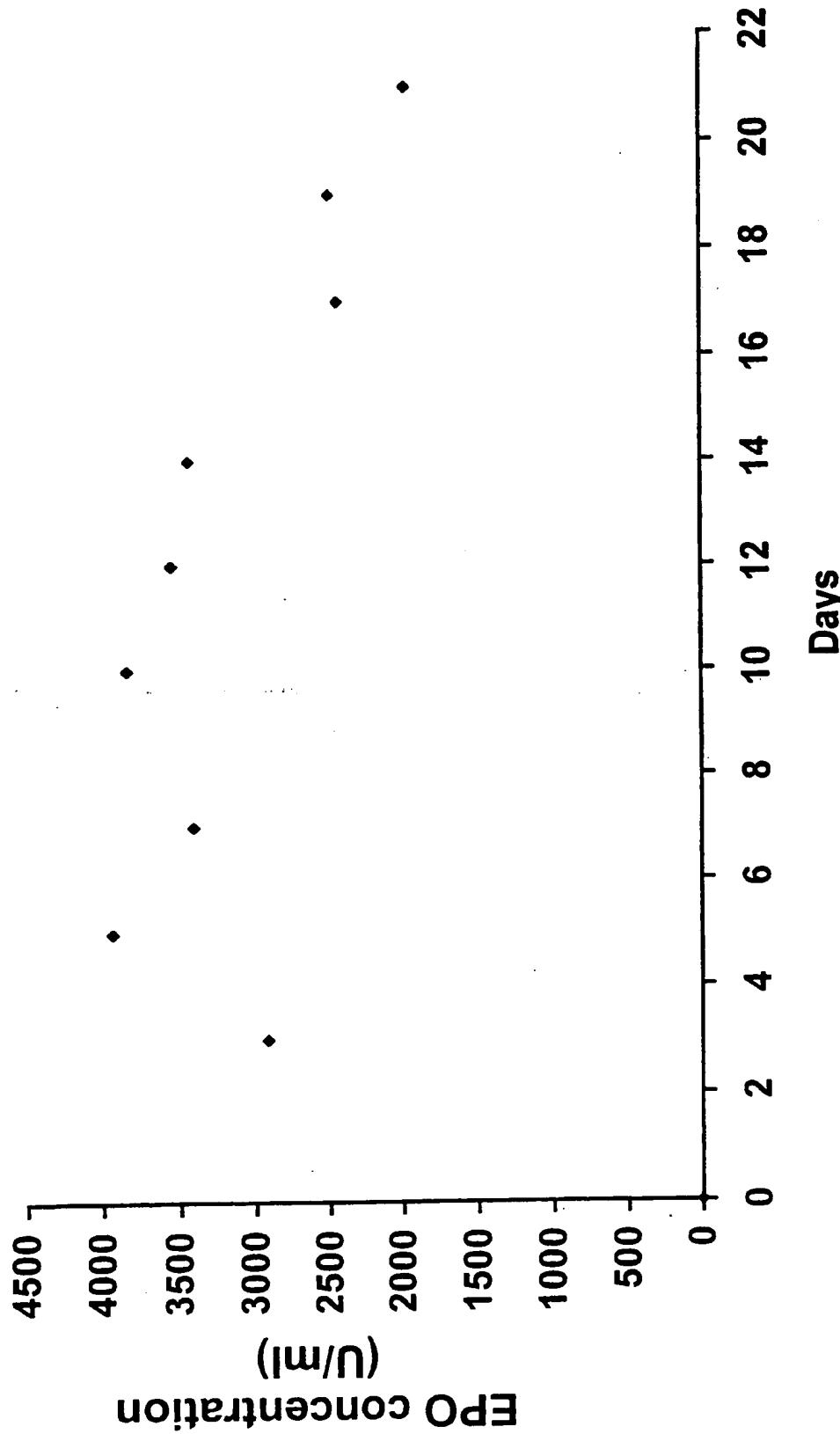
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FIGURE 16

EPO concentration in
a 2 liter bioreactor (repeated batch)



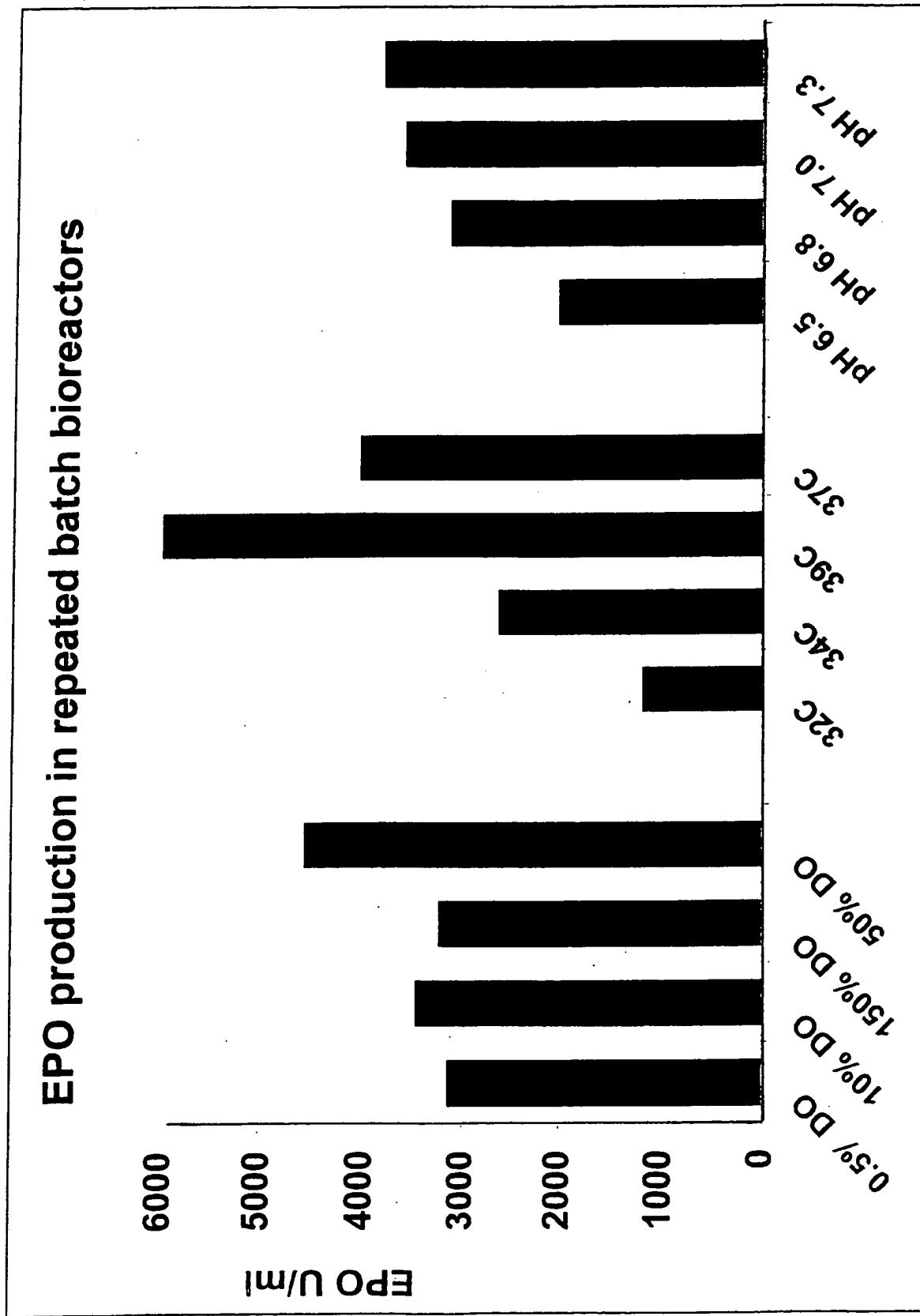


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FIGURE 17



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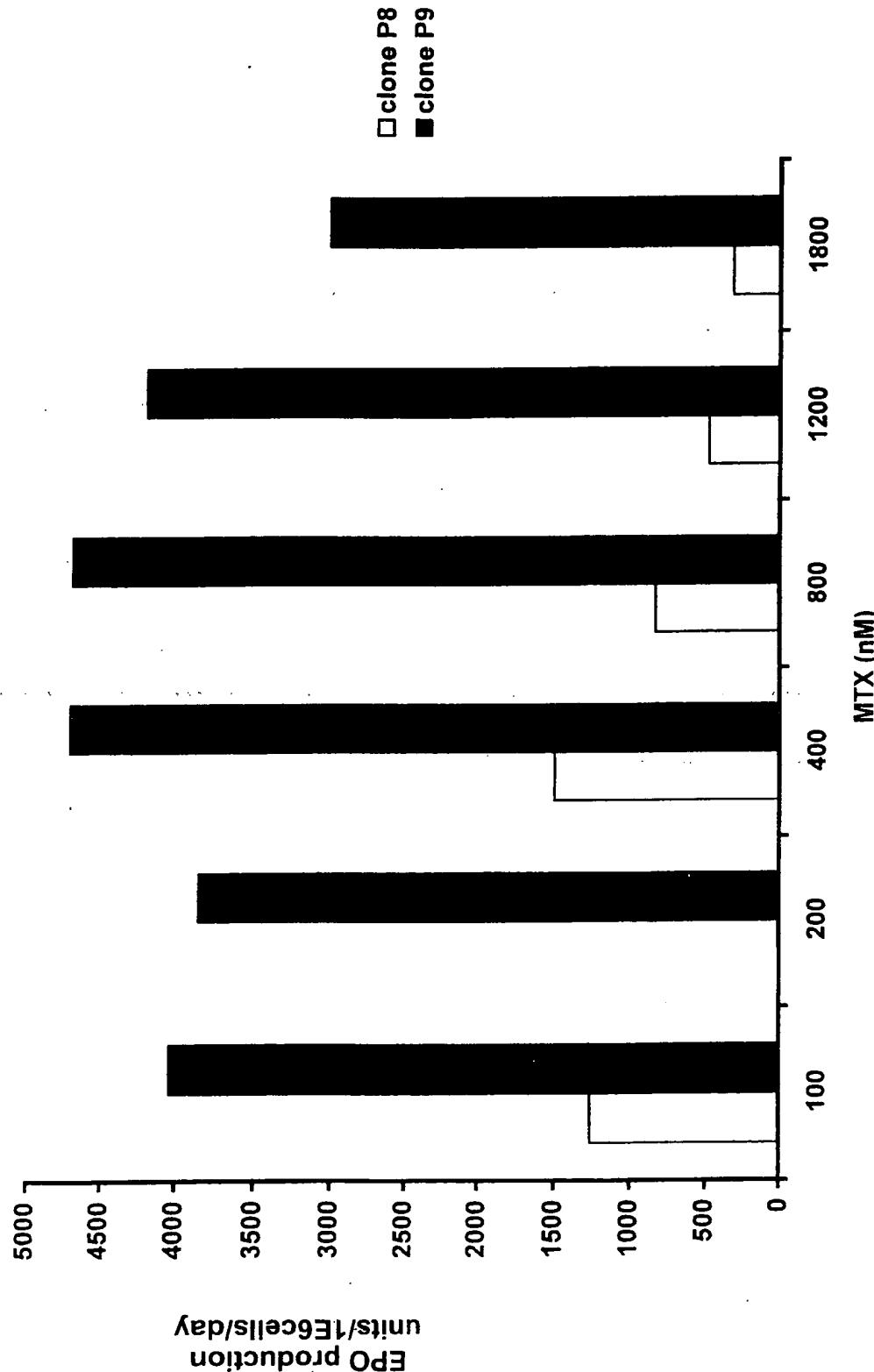
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FIGURE 18

EPO production upon increase in MTX concentration



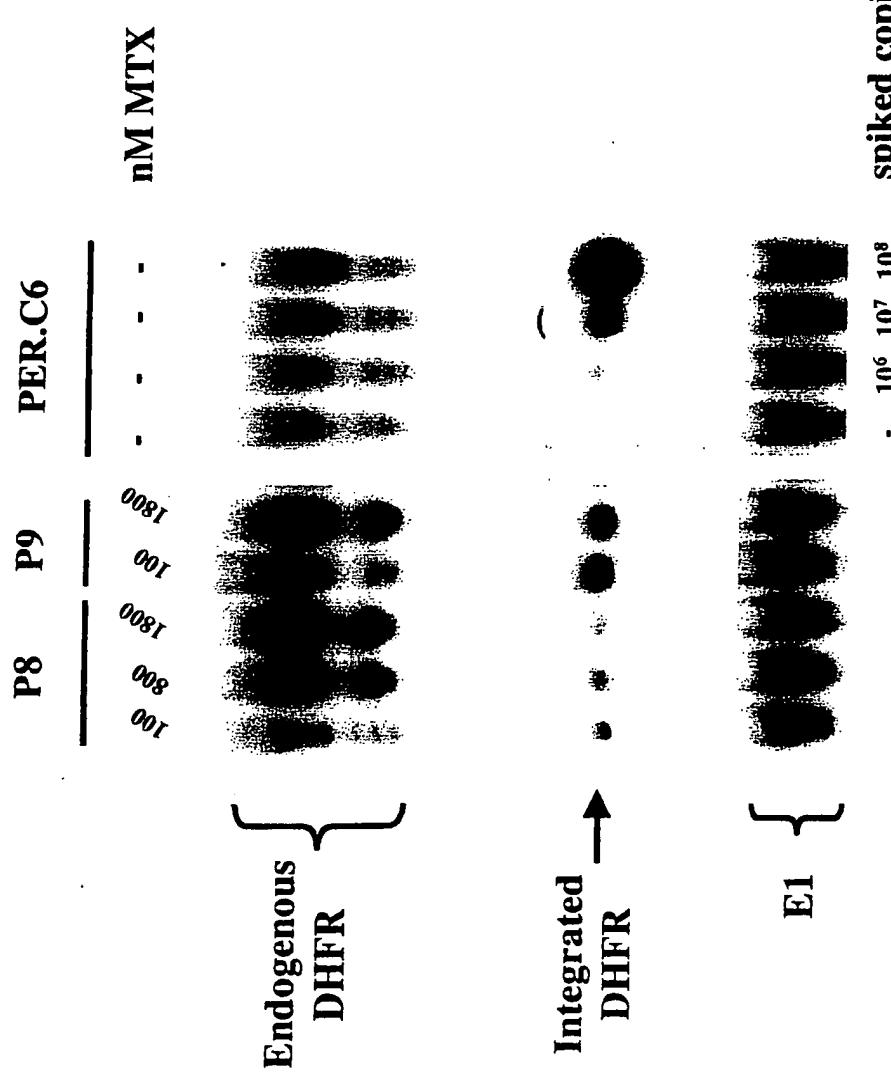


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FIGURE 19



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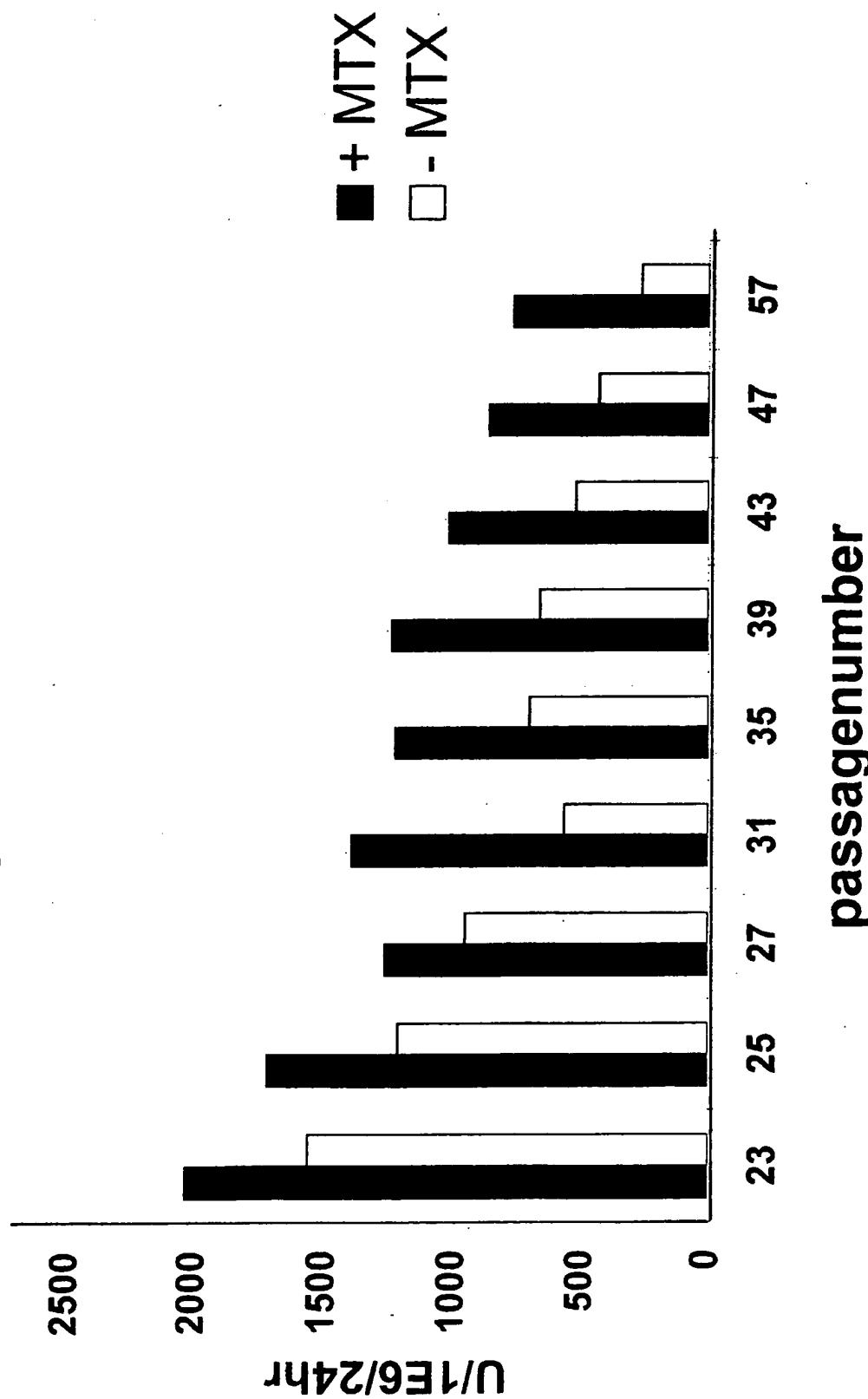
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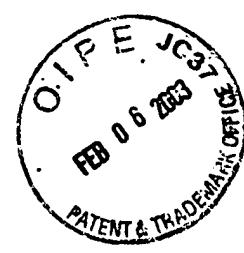
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FIGURE 20A

EPO production in P8





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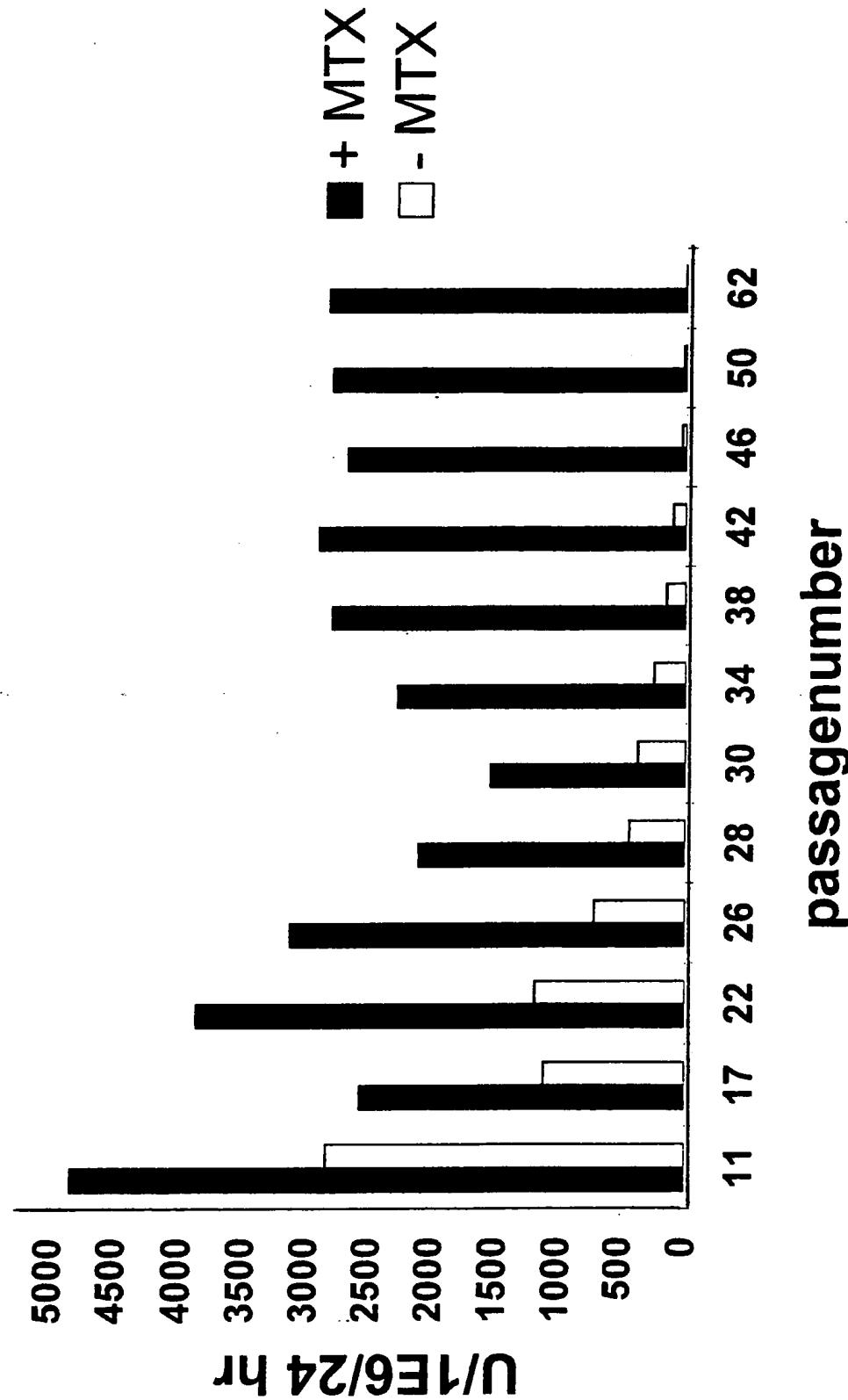
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FIGURE 20B

EPO production in P9





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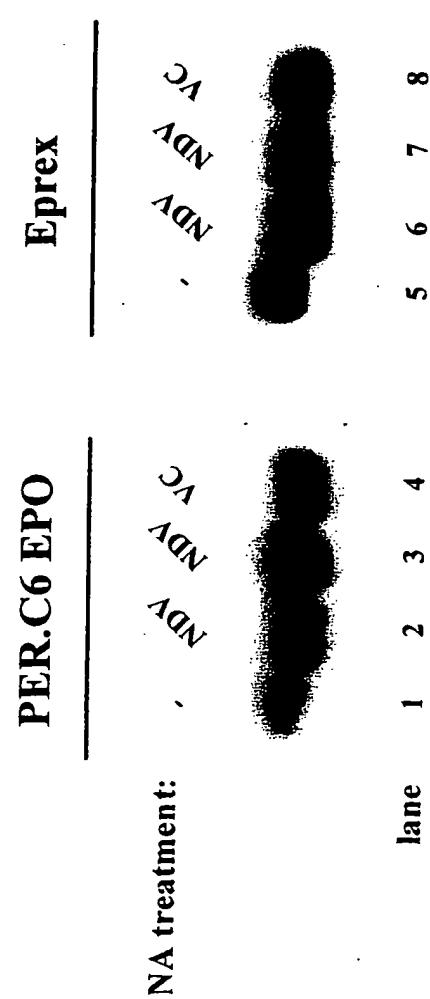
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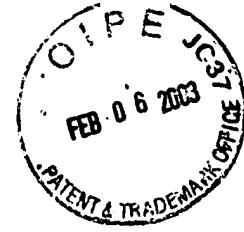
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FIGURE 21A





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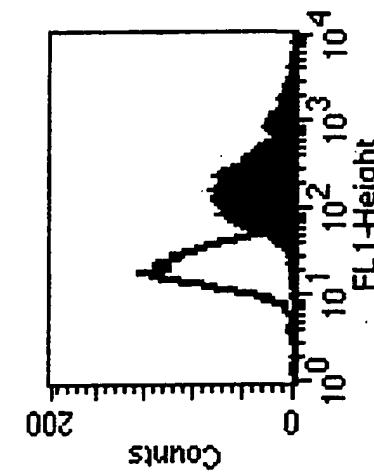
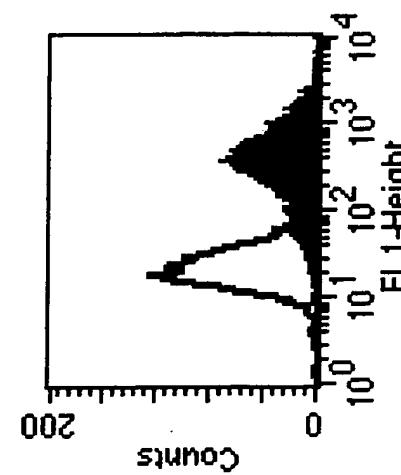
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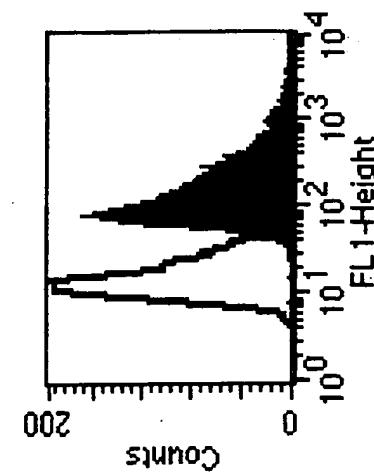
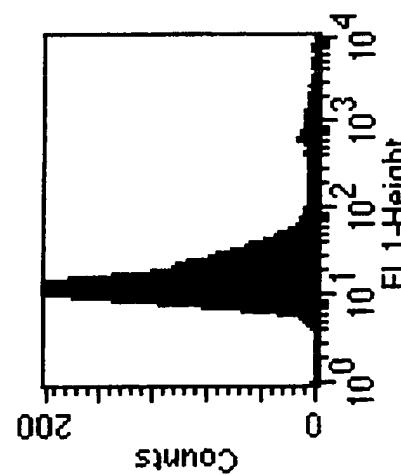
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FIGURE 21B

PER.C6



CHO



Sia2-6Gal

Sia2-3Gal



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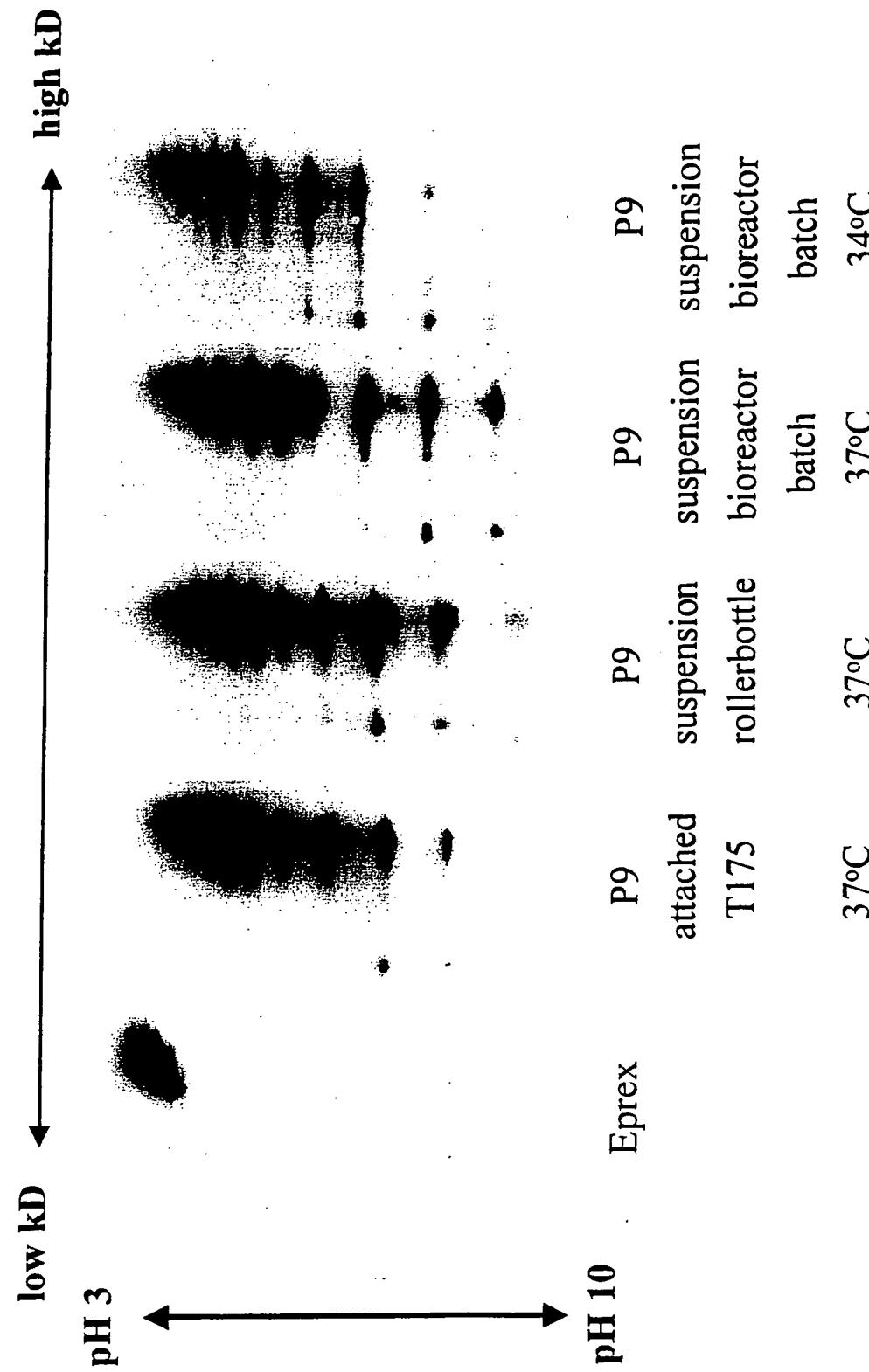
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FIGURE 22A

2D/western blot on recombinant EPO





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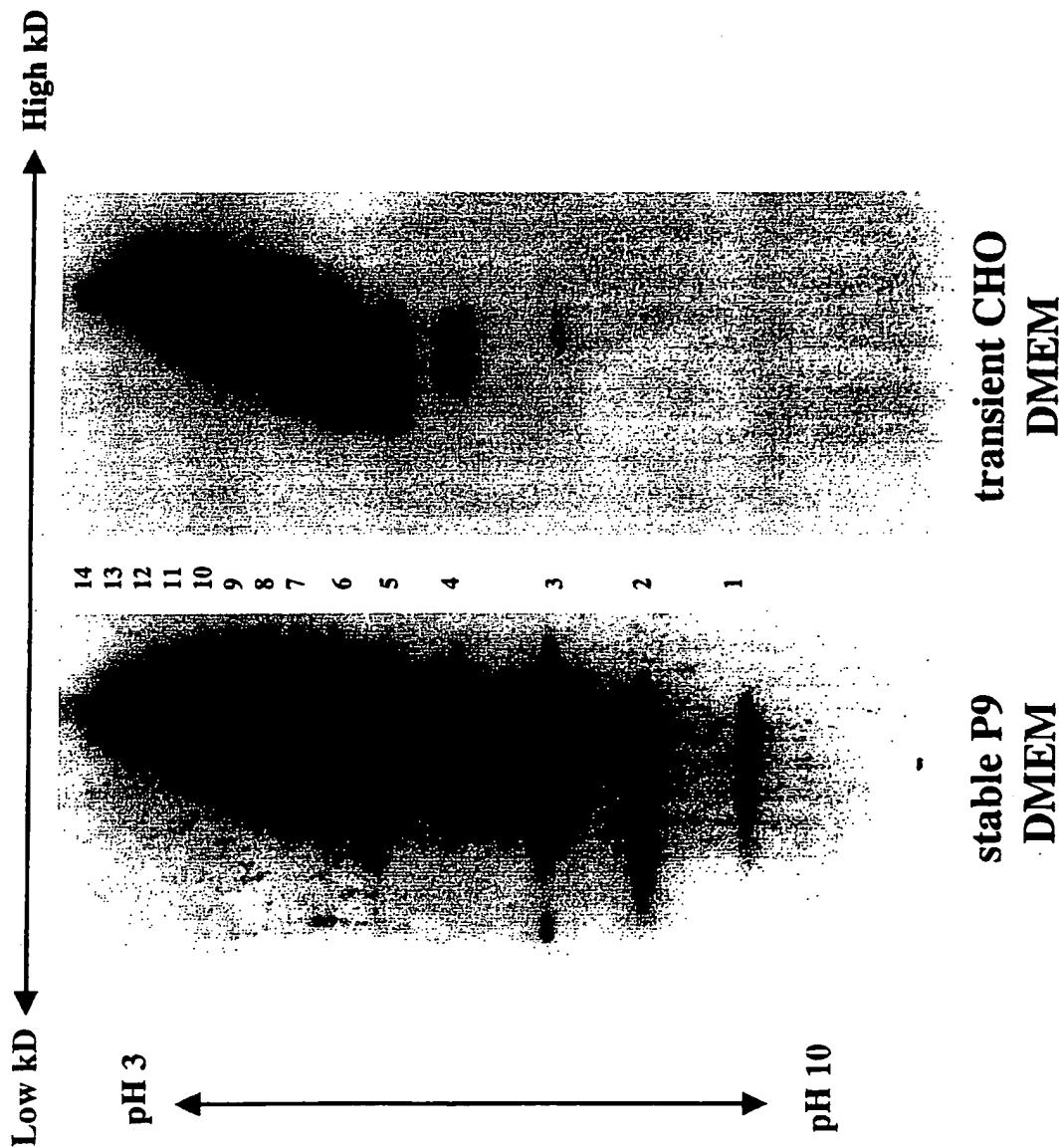
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FIGURE 22B

2D/western blot on recombinant EPO



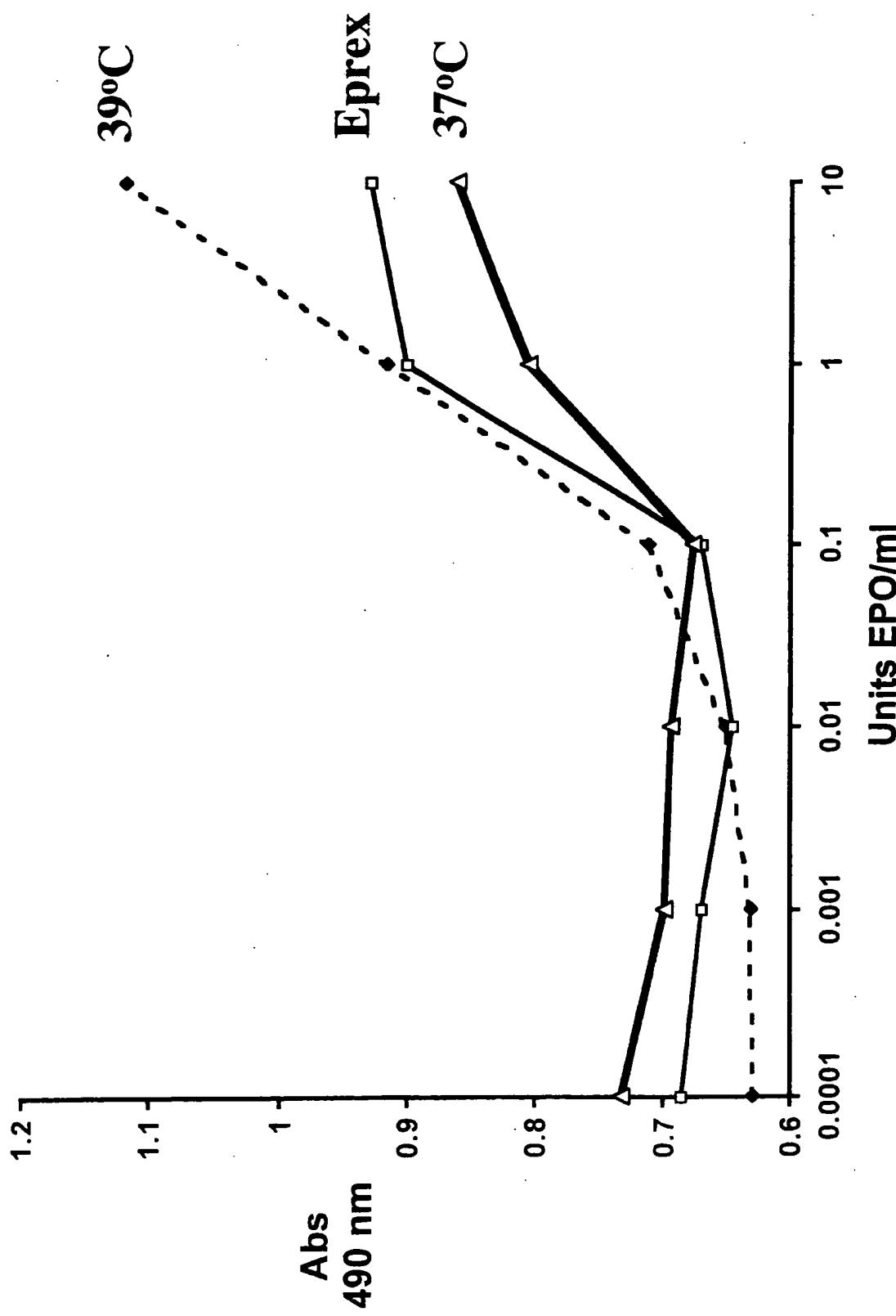
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FIGURE 23





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FIGURE 24

Western blot of transient UBS-54 expression in PER.C6

